



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/539,653

06/14/2005

Dirk Bald

ZAHFRI P754US

6640

20210 7590 01/16/2007
DAVIS & BUJOLD, P.L.L.C.
112 PLEASANT STREET
CONCORD, NH 03301

EXAMINER

KING, BRADLEY T

ART UNIT

PAPER NUMBER

3683

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

01/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/539,653

Applicant(s)

BALD, DIRK

Examiner

Bradley T. King

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 13-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6-05</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16, 18, 20 and 22-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 recites "a control unit of the electrically actuated service brake is directly incorporated into a motor control unit, and the motor control unit and the brake control unit are connected to each other though a bus system". The meaning of these limitations is not clear as the "directly incorporated" recitation seems to conflict with the bus connection. It is not clear what is encompassed by the directly incorporated recitation.

Claim 18 recites "is incorporated into the braking system as an underlying unit". It is not clear what is meant by this recitation.

Claim 20 recites "wherein actuators actuating electromagnetically, through one of an electric motor and piezo-electrically devices, can be used as braking actuators". It is not clear from the language what kind of actuators are required by the claims, in particular, it is not clear if electromagnet actuation is an alternative as well and electric

Art Unit: 3683

motor and piezo-electrical devices. The recitation "piezo-electrically devices" is also generally awkward and confusing. The claim has been interpreted as allowing electromagnetic actuation.

Claim 22 recites "a braking force assumes, time-controlled or event-controlled, a specific value in an event of a drop in electric energy". It is not clear what "time-controlled or event-controlled" is intended to convey.

Claim 23 recites "the parking brake". There is insufficient antecedent basis for this limitation in the claims.

Claim 23 recites "the parking brake engages without current is bled with current while the service brake acts in one of a same manner or is also bled without current and engages with current". The meaning of this limitation is not clear, nor is the meaning of "bled without current" adequately defined by the disclosure.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13-15 and 17-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Vikman et al (US# 2001/0003401).

Vikman et al discloses all the limitations of the instant claims including; at least one electrically actuated service brake 36 and at least one motor brake of an electric motor 6, the electrically actuated service brake being controlled as a function of braking action of the motor brake and a specification of a driver, and the braking action of the motor brake is evaluated on a basis of information from a position/rotational speed sensor 38 of the motor brake. See [0036-0037] and [0047].

Regarding claim 14, note the brake control unit is directly incorporated into vehicle control unit 24.

Regarding claim 15, note the units are spatially integrated into one apparatus (for instance, the vehicle can be considered one apparatus)

Regarding claim 17, note figure 4 and [0042].

Regarding claim 18, Vikman discloses a mechanical or emergency actuation system as broadly recited.

Regarding claim 19, see [0039].

Regarding claim 20, Vikman et al disclose an electromagnetic brake.

Regarding claim 22, the electromagnetic brake inherently assumes a braking force of either full brake or zero braking force depending on the manner in which it is biased.

Regarding claim 23, note the 112 2nd rejection above.

Claims 13-18 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Hashiba et al (US# 2002/0113101).

Hashiba et al discloses all the limitations of the instant claims including; at least one electrically actuated service brake 30 and at least one motor brake 28 of an electric motor, the electrically actuated service brake being controlled as a function of braking action of the motor brake and a specification of a driver 26, and the braking action of the motor brake is evaluated on a basis of information from a position/rotational speed sensor 22 of the motor brake. See [0019-0021] and [0035-0037].

Regarding claim 14, note the brake control unit is directly incorporated into vehicle control unit 14.

Regarding claim 15, note the units are spatially integrated into one apparatus (for instance, the vehicle can be considered one apparatus)

Regarding claim 16, see [0020].

Regarding claim 17, note step 80.

Regarding claim 18, Hashiba et al discloses a mechanical or emergency actuation system as broadly recited.

Regarding claim 23, note the 112 2nd rejection above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley T. King whose telephone number is (571) 272-7117. The examiner can normally be reached on 11:00-7:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on (571) 272-6786. The fax phone

Art Unit: 3683

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BTK

 1/2/07
BRADLEY KING
PATENT EXAMINER